PART II
COMPENSATORY MITIGATION PLAN CHECKLIST[1]

- ❑ **1. Summary**

- ❑ **2. Responsible Parties**
  a. Applicant/Permittee
  b. Entity(ies) having financial responsibility for mitigation
  c. Applicant's designated agent (if any)
  d. Preparer(s) of the proposal/plan

- ❑ **3. Project Requiring Mitigation**
  a. Location
  b. Brief summary of overall project

- ❑ **4. Mitigation Goals and Objectives**
  a. Impact Site
  b. Mitigation Site

- ❑ **5. Baseline Information for Impact and Proposed Mitigation Sites**
  a. Location
  b. Classification
  c. Quantify wetland or stream resources
  d. Assessment method used to quantify impacts
  e. Existing hydrology/topology
  f. Existing vegetation
  g. Existing soils
  h. Existing wildlife habitat/use
  i. Threatened/Endangered species
  j. Historic and current land use
  k. Current owner(s)
  l. Watershed context/surrounding land use

- ❑ **6. Mitigation Site Selection and Justification**
  a. Site-specific objectives
  b. Watershed/regional objectives.
  c. Describe mitigation project contributions to aquatic resource functions
  d. Describe likely future adjacent land uses
  e. Site selection practicability
  f. Practicability of on-site or in-kind options
  g. Mitigation site deed restrictions, easements, rights-of-way
  h. Sustainable and self-maintaining mitigation design
  i. USFWS clearance
  j. Cultural resources clearance

- ❑ **7. Mitigation Work Plan**
  a. Site boundary maps

[1] Refer to "Compensatory Mitigation Plan Detailed Outline" for further explanation of specific checklist items.

b. Timing of mitigation
c. Grading plan
d. Construction methods
e. Construction schedule
f. Planned hydrology
g. Planned vegetation
h. Pest plant removal
i. Planned soils
j. Planned habitat features
k. Planned buffers
l. Other planned features
m. Construction monitor

- ❑ **8. Performance Standards**
  a. Identify success criteria
  b. Set target ranges for identified parameters

- ❑ **9. Site Protection and Maintenance**
  a. Long-term legal protection instrument
  b. Responsible parties
  c. Maintenance plan and schedule
  d. Invasive species/noxious weed control plan

- ❑ **10. Monitoring Plan**
  a. Responsible parties
  b. Data to be collected and reported
  c. Assessment tools and methodologies
  d. Format for reporting monitoring data (see Part III of these Guidelines)
  e. Provide monitoring schedule

- ❑ **11. Adaptive Management Plan**
  a. Identify party (ies) and responsibilities
  b. Discuss design relative to potential challenges
  c. Potential remedial measures
  d. Performance standard modification procedures

- ❑ **12. Financial Assurances**
  a. Identify party (ies) responsible for, and contents of, each assurance
  b. Specify types of assurances
  c. Assurance review schedule

- ❑ **13. Format**
  a. Reports/Proposals
  b. Figures
  c. List of tables, schedules, and maps to be submitted

Attachment A
Natural Resources Conservation Service (NRCS) Program Requirements

COMPENSATORY MITIGATION PLAN
DETAILED OUTLINE

This document is intended as a technical guide for Clean Water Act (CWA) Section 404 and Section 10 permit applicants[2] preparing compensatory mitigation plans. Compensatory mitigation is required to offset impacts that cannot be avoided and minimized to the extent practicable. The purpose of this document is to identify the types and extent of information that agency personnel need to assess the likelihood of success of a mitigation proposal. Success is generally defined as: a healthy sustainable wetland/water that – to the extent practicable – compensates for the lost functions of the impacted water in an appropriate landscape/watershed position. This checklist provides a basic framework that will improve predictability and consistency in the development of mitigation plans for permit applicants. Although every mitigation plan may not need to include each specific item, applicants should address as many as possible and indicate, when appropriate, why a particular item was not included (For example, permit applicants who will be using a mitigation bank would not be expected to include detailed information regarding the proposed mitigation bank site since that information is included in the bank's enabling instrument).

1. Summary. Provide a brief (one page or so) summary of the project and mitigation proposal.

2. Responsible Parties. Provide names, titles, addresses, and phone numbers of responsible parties including contact persons.

a. Applicant/Permittee: (Note: the project proponent , not consultant, is to be identified here.

b. Entity(ies) having financial responsibility for mitigation: (i.e. for implementation of compensatory mitigation and attainment of success criteria, if different from "A,")

c. Applicant's designated agent (if any)

d. Preparer(s) of the proposal/plan

3. Project Requiring Mitigation

a. Location: Describe location and provide: a) road map with site location clearly shown, and b) USGS quad map with project site outlined. Entire watershed for impact site should be shown.

b. Brief summary of overall project: In a few paragraphs, describe the overall project for which a permit or authorization is required. Include type of development (or other work), project size, and a brief projected schedule of project construction.

4. Mitigation Goals and Objectives

a. Impact Site

(1) Describe and quantify the aquatic resource type and functions that will be impacted at the proposed impact site. Include temporary and permanent impacts to the aquatic environment.

[2] The checklist may be used in other federal or state programs as well; however, additional information may be needed to satisfy specific program requirements. For example, Attachment A indicates additional information needed by the Natural Resources Conservation Service (NRCS) to satisfy the Swampbuster provisions of the Food Security Act.

(2) Describe aquatic resource concerns in the watershed (e.g. flooding, water quality, habitat) and how the impact site contributes to overall watershed/regional functions. Identify watershed or other regional plans that describe aquatic resource objectives.

b. Mitigation Site

(1) Describe and quantify the aquatic resource type and functions for which the mitigation project is intended to compensate.

(2) Describe the contribution to overall watershed/regional functions that the mitigation site(s) is intended to provide.

5. Baseline Information: For both the proposed impact site and proposed mitigation site (and proposed reference sites, if applicable), **provide:**

a. Location

(1) Coordinates (preferably using digital geographic positioning system (DGPS)) and written location description (including block, lot, township, county, Hydrologic Unit Code (HUC) number, as appropriate and pertinent).

(2) Maps. Identify those jurisdictional areas to be directly or indirectly affected by the project. Provide appropriately sized topographic base map(s) with jurisdictional areas and impacts clearly shown (e.g., site map with delineation (verified by the Corps), vicinity map, map identifying location within the watershed, National Wetlands Inventory (NWI map), NRCS soils map, zoning or planning maps). Indicate area of proposed fill on site map.

(3) Aerial/Satellite photos.

b. Classification. Include waterbody classification information such as hydrogeomorphic (HGM) description, Cowardin classification, Rosgen stream type, NRCS classification, as appropriate.

c. Quantify wetland resources (acreage) or stream resources (linear feet) by type(s).

d. Assessment method(s) used to quantify impacts to aquatic resource functions (e.g., HGM, IBI, WRAP, etc.); explain findings. The same method should be used at both the impact and mitigation sites.

e. Existing hydrology/topology. Describe hydrology and topography, including slope ratios of wetlands and stream banks, and identify the source(s) of water for the site. Indicate groundwater level(s) if known and significant pollutants. Specifically, discuss

(1) Water budget. Include water source(s) (precipitation, surface runoff, groundwater, stream) and loss(es). Provide budgets for both wet and dry years.

(2) Hydroperiod (seasonal depth, duration, and timing of inundation and/or saturation), percent open water.

(3) Historical hydrology of mitigation site if different than present conditions

(4) Contributing drainage area (acres).

(5) Results of water quality analyses (e.g., data on surface water, groundwater, and tides for such attributes as pH, redox, nutrients, organic content, suspended matter, DO, heavy metals).

f. Existing vegetation. Describe plant communities on the impact site.

(1) List of species on site, indicating dominants.

(2) Species characteristics such as densities, general age and health, and native/non-native/invasive status.

(3) Percent vegetative cover; community structure (canopy stratification).

(4) Map showing location of plant communities.

g. Existing soils

(1) Soil profile description (e.g., soil survey classification and series) and/or stream substrate (locate soil samples on site map).

(2) Results of standard soils analyses, including percent organic content, structure (e.g., granular, compacted), texture, permeability.

h. Existing wildlife habitat/use. Describe observed/expected animal use and/or habitat values of the site.

i. Threatened/Endangered Species. Identify any federally-listed (including proposed) species found on the site for which suitable habitat is present, including whether the site is within designated critical habitat.

j. Historic and current land use; note prior converted cropland.

k. Current owner(s)

l. Watershed context/surrounding land use.

(1) Impairment status and impairment type (e.g., 303(d) list) of aquatic resources.

(2) Description of watershed land uses (percent agriculture, forested, wetland, developed).

(3) Size/Width of natural buffers (describe, show on map).

(4) Description of landscape connectivity: proximity and connectivity of existing aquatic resources and natural upland areas (show on map).

(5) Relative amount of aquatic resource area that the impact site represents for the watershed and/or region (i.e., by individual type and overall resources).

6. Mitigation Site Selection and Justification

a. Site-specific objectives: Description of mitigation type(s)[3], acreage(s) and proposed compensation ratios.

b. Watershed/regional objectives: Description of how the mitigation project will compensate for the functions identified in the Mitigation Goals section 4.b(1).

c. Description of how the mitigation project will contribute to aquatic resource functions within the watershed or region (or sustain/protect existing watershed functions) identified in the Mitigation Goals section above. How will the planned mitigation project contribute to landscape connectivity?

d. Likely future adjacent land uses and compatibility (show on map or aerial photo).

e. Description of site selection practicability in terms of cost, existing technology, and logistics.

f. If the proposed mitigation is off-site and/or out-of-kind, explain why on-site or in-kind options[4] are not practicable or environmentally preferable.

g. Existing and proposed mitigation site deed restrictions, easements and rights-of-way. Demonstrate how the existence of any such restriction will be addressed, particularly in the context of incompatible uses.

h. Explanation of how the design is sustainable and self-maintaining. Show by means of a water budget that there is sufficient water available to sustain long-term wetland or stream

[3] That is, restoration, enhancement, creation or preservation: see Regulatory Guidance Letter (RGL) 02-2, Mitigation RGL, for definitions for these terms.

[4] See Federal Guidance on the Use of Off-Site and Out-of-Kind Compensatory Mitigation under Section 404 of the CWA. (to be published)

hydrology. Provide evidence that a legally defensible, adequate and reliable source of water exists.
i. USFWS listed species clearance letter or Biological Opinion.
j. SHPO Cultural Resources clearance letter.

7. Mitigation Work Plan

a. Maps marking boundaries of proposed mitigation types; include DGPS coordinates.
b. Timing of mitigation: before, concurrent or after authorized impacts; if mitigation is not in advance or concurrent with impacts, explain why it is not practicable and describe other measures to compensate for the consequences of temporal losses.
c. Grading plan
    (1) Indicate existing and proposed elevations and slopes.
    (2) Describe plans for establishing appropriate micro-topography. Reference wetland(s) can provide design templates.
d. Description of construction methods (e.g., equipment and procedures to be used, access paths, etc.)
e. Construction schedule (expected start and end dates of each construction phase, expected date for as-built plan).
f. Planned hydrology
    (1) Source of water.
    (2) Connection(s) to existing waters.
    (3) Hydroperiod (seasonal depth, duration, and timing of inundation and saturation), percent open water, water velocity.
    (4) Potential interaction with groundwater.
    (5) Existing monitoring data, if applicable; indicate location of monitoring wells and stream gauges on site map.
    (6) Stream or other open water geomorphic features (e.g., riffles, pools, bends, deflectors).
    (7) Structures requiring maintenance (show on map) Explain structure maintenance in section 9.c.
g. Planned vegetation
    (1) Native plant species composition (e.g., list of acceptable native hydrophytic vegetation).
    (2) Source of native plant species (e.g. salvaged from impact site, local source, seed bank); stock type (bare root, potted, seed); and plant age(s)/size(s).
    (3) Plant zonation/location map (refer to grading plan to ensure plants will have an acceptable hydrological environment).
    (4) Plant spatial structure – quantities/densities, percent cover, community structure (e.g., canopy stratification).
    (5) Expected natural regeneration from existing seed bank, plantings, and natural recruitment.
h. Pest plant removal. Describe method(s) to be used to remove any pest plants and/or noxious weeds from the site.
i. Planned soils
    (1) Soil profile

(2) Source of soils (e.g., existing soil, imported impact site hydric soil), target soil characteristics (organic content, structure, texture, permeability), soil amendments (e.g., organic material or topsoil).

(3) Erosion and soil compaction control measures.

j. Planned habitat features (identify large woody debris, rock mounds, etc. on map).

k. Planned buffer (identify on map).

(1) Evaluation of the buffer's expected contribution to aquatic resource functions.

(2) Physical characteristics (location, dimensions, native plant composition, spatial and vertical structure.

l. Other planned features, such as interpretive signs, trails, fence(s), mitigation boundary signs, etc.

m. Construction monitor. As applicable, provide a statement that a person/firm familiar with the mitigation/monitoring plan will supervise site preparation. This person should have authority to direct equipment operators, and should submit a brief report to the Corps following completion of construction.

8. Performance Standards

a. Identify clear, precise, quantifiable parameters that can be used to evaluate the status of desired functions. These may include hydrological, vegetative, faunal and soil measures. (e.g., plant richness, percent exotic/invasive species, water inundation/saturation levels). Describe how performance standards will be used to verify that objectives identified in 6.b. and 6.c. have been attained.

b. Set target values or ranges for the parameters identified. Ideally, these targets should be set to mimic the trends and eventually approximate the values of a reference wetland(s).

9. Site Protection and Maintenance

a. Long-term legal protection instrument (e.g. conservation easement, deed restriction, transfer of title).

b. Party(ies) responsible and their role (e.g. site owner, easement owner, maintenance implementation). If more than one party, identify primary party.

c. Maintenance plan and schedule (e.g. measures to control predation/grazing of mitigation plantings, temporary irrigation for plant establishment, replacement planting, structure maintenance/repair, etc.).

d. Invasive species/noxious weed control plan (plant and animal).

10. Monitoring Plan

a. Party(ies) responsible for monitoring. If more than one, identify primary party.

b. Data to be collected and reported, how often and for what duration (identify proposed monitoring stations, including transect locations on map).

c. Assessment tools and/or methods to be used for data collection and monitoring the progress towards attainment of performance standard targets.

d. Format for reporting monitoring data and assessing mitigation status (see Part III of these Guidelines).

e. Monitoring schedule.

11. Adaptive Management Plan

a. Party(ies) responsible for adaptive management.

b. Identification of potential challenges (e.g., flooding, drought, invasive species, seriously degraded site, extensively developed landscape) that pose a risk to project success. Discuss how the design accommodates these challenges.

c. Discussion of potential remedial measures in the event mitigation does not meet performance standards in a timely manner.

d. Description of procedures to allow for modifications of performance standards if mitigation projects are meeting mitigation goals, but in unanticipated ways.

12. Financial Assurances

a. For each of the following, identify party(ies) responsible to establish and manage the financial assurance, the specific type of financial instrument, the method used to estimate assurance amount, the date of establishment, and the release and forfeiture conditions:

(1) Construction phase
(2) Maintenance
(3) Monitoring
(4) Remedial measures/adaptive management
(5) Project success

b. Types of assurances (e.g., performance bonds, irrevocable trusts, escrow accounts, casualty insurance, letters of credit, etc.).

c. Schedule by which financial assurance will be reviewed and adjusted to reflect current economic factors.

13. Format

a. Reports/Proposals

(1) Headings. **All** cover, title page, or letter headings must contain the **Corps File Number** and the **Date** of the document.

(2) Contributor Page. List all persons who prepared the plan and performed monitoring.

(3) Distribution Page. List names, titles, and companies/agencies of all persons receiving a copy of the report.

(4) Binding. Generally speaking, a mitigation plan should be a single, stand-alone, separately bound document. All materials submitted should be, or be folded to, 8 ½" x 11." Do not use three-ring binders.

b. Figure Format. Maps, drawings. All maps and plans submitted should be legible, complete, clear, and at the appropriate scale. Each should include the following:

(1) Title block.
(2) Date of preparation.
(3) Date(s) of any modifications.
(4) North arrow (plan views). The orientation of the map on the page (as it is read) should be the **same** for **all** maps submitted. By convention, North will normally be toward the top of the page.
(5) Scale. Base topo maps should be full-sized (1 inch = 100 feet or less, 1 inch = 200 feet for very large projects).

(6) Datum. Reference elevation datum should be indicated on both plan and section views.

(7) Jurisdictional boundaries. Ordinary high water mark, wetland boundaries.

(8) Legend. Identify all symbols, patterns or screens used. If colors are used to indicate areas on the original map, color copies (or the original) should be included in the Corps submittal.

c. List of Tables, Schedules, and Maps to be submitted (Note: This is an overall list. It is only necessary to submit the items that apply to your project.)

(1) Tables

(a) Impact acreage

(b) Impact vs. Mitigation acreage

(c) Plant species

(d) Performance criteria/monitoring methods

(2) Schedules

(a) Implementation

(b) Monitoring/Reporting

(c) Maintenance

(3) Maps

(a) Overall Project: Road map; USGS map; jurisdictional area topo map

(b) Mitigation Site (if different from project site): Road map; USGS map; topo map; jurisdictional map (if applicable)

(c) Mitigation Design: Grading plan (including cross-sections and water control structures, if any); planting plan

(d) As-builts (if different from plan): Grading; planting

ATTACHMENT A
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) PROGRAM REQUIREMENTS[5]

- ☐ NRCS conservation practice standards and specifications
- ☐ NRCS Environmental Evaluation
- ☐ Mitigation agreement
- ☐ Federal/State/Local required permits
- ☐ Compatible use statement:
    - Allowable uses (e.g. hunting, fishing)
    - Prohibited uses (e.g. grazing, silviculture)
    - Uses approved by compatible use permit
- ☐ Copy of recorded easement
- ☐ Subordination waiver on any existing liens on mitigation site
- ☐ Statement of landowner's tax liability
- ☐ Copy of Warrantee Deed from landowner's attorney (no encumbrances, if so list)
- ☐ Copy of certified wetland determination:
    - NRCS-CPA-026 Highly Erodible Land and Wetland Conservation Certification
    - Wetland label map
- ☐ Copy of FSA Good Faith Waiver
- ☐ Copy of easement(s) ingress/egress granted to USDA employees for gaining legal access to mitigation site
- ☐ Copy of NRCS-CPA-38 Request for Certified Wetland Determination/Delineation

[5] For a complete list of the program requirements needed by NRCS to satisfy the Swampbuster provisions of the Food Security Act see the National Food Security Act Manual.